Data

Pixels- 2D array of int

Width, height- int

File pointers- image

Int choice

Image processing:

Main menu: allows user to prompt options to load an image, display, and edit image. Edit functions: crop, dim, brighten. Image is updated and menu has function to save changes. New image should be prompted new file name and choice to save. Return to 1st menu of choices again.

Functions:

main()

output: void

Display menu to user. Choices: 1. Load image, 2. Display image, 3. Edit image, 4. Exit program. Repeat until user chooses exit.

loadImage()

\*image

open file “r” and read image dimensions from file. Close the file and return.

Load from file and return pointer to variable for image data

displayImage()

int pixels, int width, int height

output: void

iterate over pixels in the 2d array (pixels)

switch between brightness options for each character for a row, moving to next line to display the next row,

editMenu()

output:

int 2d pixels int width, int height

display menu to user. Choices: Crop image, dim image, brighten image, return. Repeat loop until user returns to main menu.

cropImage()

int new height new width

calculate dimensions: new width= endx- startx, new height = endy – endx

dimImage()

brightenImage()

Output void

accept 2D array of pixels, Image width, and Image height as parameters.

implement the respective image editing operations

saveChanges()

char file name, int width int height

return output: bool

open file.